



Hazardous Waste & Toxics Reduction Program
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Environmentally Preferable Purchasing

Project Report



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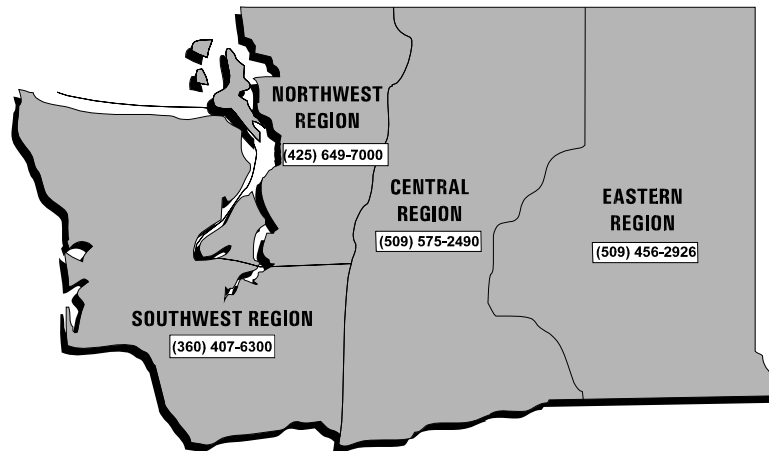
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This report represents a joint effort by the Washington State Departments of Ecology and General Administration. Ecology's environmental specialists and GA's purchasing officers worked together to address ways to expand GA's ongoing efforts on procuring products with environmental attributes and to inform buyers about the environmental benefits. Both agencies are committed to continuing this working relationship and increasing the number of products with environmental attributes that are contracted by the state and purchased by the state agencies.

Written by Patricia Jatczak, Hazardous Waste and Toxics Reduction Program, Department of Ecology

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Executive Summary

In 1999, the Department of Ecology began working on a “green purchasing” project with the Department of General Administration. The goals were to increase the availability of products with environmental attributes to state agencies, and to inform purchasers about the availability, environmental benefits, and performance of these products and services. As the environmental regulatory agency, Ecology is interested in reducing the negative impacts of state government on the environment. GA, as the primary purchasing authority for the state, is interested in procuring goods and services that have positive environmental attributes and promoting their use. This collaboration of environment and purchasing can result in a more sustainable state government.

The volume of goods and services procured by the state makes purchasing a powerful tool to promote change in the design, production, and “end of life” management of products. Washington State is interested in using more of its procurement expenditures to provide environmental protection through product choices.

This document addresses some of the activities that were undertaken in specific commodity areas, describes some activities in the area of Product Stewardship, and concludes with recommendations for future work based on lessons learned. Product Stewardship is an emerging environmental management strategy that aims to reduce the environmental impacts of a product throughout its entire life-cycle. It is a collaborative effort by industry, government, and consumers, to take a greater role in reducing environmental impacts as products are designed, used and disposed. There is great potential for future use of Product Stewardship approaches by programs at Ecology who are seeking to reduce both solid and hazardous wastes through state government purchasing.

These new efforts represented in this report add to the substantial work already done by GA to procure products with recycled content and other environmental attributes, from recycled content copy paper to cleaning supplies to hybrid electric vehicles. Washington State was one of the pioneers in implementing the federal recycled content procurement guidelines, and continues to be a pioneer in procuring products with other environmental criteria.

This report concludes with a recommendation that Ecology and GA continue with this collaborative effort. The specifics are outlined in the Summary. The main items are to increase outreach to state agencies’ purchasers on environmentally preferable products; to explore the potential of legislation or an Executive Order encouraging environmental purchasing, and to continue work on specific commodity areas.

The Environmentally Preferable Purchasing Project

In 1999, the Department of Ecology (Ecology began work on a “green purchasing” project. The intent was to work closely with the Department of General Administration (GA) to increase the availability of products with environmental attributes through state contracts, and to educate and inform purchasers about the availability, environmental benefits, and performance of these products and services. “Green purchasing” became “environmentally preferable purchasing,” or EPP, because federal, state, and local governments were using this term to describe activities that increased environmental awareness in making purchasing decisions.

This document addresses some of those activities, tracks that were pursued, and shifts in thinking as a result of the EPP purchasing work. It includes work with GA, internal work within Ecology, and activities in the area of Product Stewardship. Product stewardship is an environmental management strategy that directs all of the participants in the life-cycle of a product, from design to disposal, to take a greater role in reducing environmental impacts. The report concludes with recommendations for future work based on lessons learned.

The volume of goods and services purchased by the state makes purchasing a powerful tool to promote change in the design, production, and “end-of-life” management of goods and services. Collectively, state and local governments in the U.S. spent over \$385 billion on goods and services in 2000. Washington State has the potential to use more of its portion of this total expenditure to provide environmental protection through product choices.

Our initial strategy in promoting EPP was to provide information to GA staff when contracts for products or services were being let to encourage the inclusion of environmental attributes or considerations. Environmental attributes are things such as recycled content, energy or water conservation, and low toxicity. There are many challenges inherent in this approach. It can take quite a long time to develop a contract and even longer to develop and include environmental criteria. Staff turnover or reorganization leads to different staff managing the contract over its term.

There are many factors involved in determining which product areas to work in, including whether or not environmentally preferable alternatives are available and what the potential environmental benefit may be.

Working contract by contract is a way to ensure that more environmental products are available for state agencies and other governments who purchase from state contracts. However, this approach has not necessarily been effective in getting agencies to actually purchase environmentally preferable options. Realizing this, GA and Ecology began to shift efforts toward marketing the environmental products and services that are available and providing information to purchasing coordinators and end users.

GA provides a service to their customers by making goods and services that the customer wants and needs available at a reasonable price. GA does not have the authority to mandate the purchase of environmentally preferable products, but they do have the authority to more aggressively promote and market products with environmental attributes at competitive prices.

Washington State Purchasing

The Office of State Procurement (OSP) of GA serves as the central purchaser for the state. They contract for goods and services needed by customers. These goods and services have an estimated term value of \$450 million. OSP also runs Central Stores, the on-line retailer with over 2,000 items, serving over 3,000 customers.

The State Purchasing Cooperative is open to any state agency. GA uses the volume of members' purchases to secure good prices and terms from vendors. Political subdivisions (such as cities, counties, ports, and school districts), colleges, and non-profit organizations can also become part of the Purchasing Cooperative for a fee. In addition, many contracts are open to use by the Oregon Purchasing Cooperative.

State contracts for goods and services are identified as either mandatory or convenience use. Mandatory means that if a state agency is purchasing a particular commodity, they must use the state contract. Convenience use means they can use the contract if they want, or use their general purchasing authorities. Political subdivisions and non-profit organizations, and the Oregon Purchasing Cooperative members do not have to abide by mandatory contracts.

Department of General Administration enabling legislation comes from RCW 43-19. Ecology was influential in the drafting of 43.19A "Recycled

Product Procurement,” and in early efforts to encourage the purchase of recycled content products and re-refined automotive oil.

RCW 43.19A “Recycled Product Procurement” was established to:

- ▶ Substantially increase the procurement of recycled content products;
- ▶ Target government procurement policies and goals toward recycled products;
- ▶ Provide standards for recycled products;
- ▶ Provide the authority for all governmental agencies to adopt preferential purchasing policies for recycled products;
- ▶ Direct state agencies to develop strategies to increase recycled product purchases, and to provide specific goals for procurement of recycled paper products and organic recovered materials; and
- ▶ Provide guidance and direction for local governments and other public agencies to develop plans for increasing the procurement of recycled content products.

WAC 236-48-96 establishes bid award preference. Bids for goods with recycled content shall be given a preference of ten percent of the amount of the bid in determining the lowest responsive bid for any item or grouping of items to be awarded to a single bidder. The recycled content levels must be certified by the vendor.

GA and state agencies have done many things that complement, but are independent of, the current work with Ecology in environmental purchasing. GA has secured a number of products with recycled content and other environmental attributes on state contract and through Central Stores. The estimated term worth of 40 products with recycled content or some other environmental attribute is roughly \$21 million, or 4.6% of the total term worth of state contracts. Some of these include:

- ▶ Paper, envelopes, file folders, fax paper, etc., with recycled content
- ▶ Desk accessories, picnic tables, lumber, serving ware with recycled plastic
- ▶ Re-refined motor oil, hydraulic oil
- ▶ Refurbished furniture, metal roofing, fencing, patrol cars
- ▶ Energy saving office equipment, lamps
- ▶ Less hazardous highway de-icer, janitorial cleaning supplies, alternative fuels, flexible fuel and hybrid vehicles

Federal, State and Local EPP Activities

The encouragement for government to consider environmental attributes in their purchasing began with federal and state policies giving preference to products with recycled content. The success of municipal and industrial recycling resulted in large amounts of material that needed to be made into new products. By purchasing products with recycled content, government could help “close the loop.” However, the goal now is to look beyond recycled content in order to select products that are “environmentally preferable” in terms of the life cycle of the product.

Federal Executive Order 13101, “Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition” mandated EPA to issue guidance to help federal agencies consider environmental concerns when making purchase decisions.

EPA’s Final Guidance on Environmentally Preferable Purchasing (EPP) defines environmentally preferable products or services to mean:

“...products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or services.”

The Executive Order and EPA guidance has spurred many governmental EPP programs and activities. Some states and local governments have issued statutes, policies, executive orders, and directives on EPP, although many programs are strictly voluntary. King County, Minnesota, and Massachusetts have successful voluntary programs, but others have found that statutory mandates improve the success of EPP. Washington State has not formalized an EPP program, but is promoting EPP through collaborative efforts.

Washington was one of the jurisdictions interviewed for an EPA publication that describes EPP efforts around the country. Washington was one of the original pioneers for purchasing products with recycled content. The report: State and Local Government Pioneers - How State and Local Governments are Implementing Environmentally Preferable Purchasing (EPA742-00-004 November 2000), highlights some of Washington’s early EPP efforts.

Look inside the back cover of this document for more information and links to these programs.

Specific Commodity Areas

This chapter has sections for specific commodity areas. It includes activities undertaken, areas of concern, accomplishments, and recommendations for further action.

Cleaning Products

Ecology's first major EPP effort with GA was with janitorial cleaning products. GA wanted to offer environmentally responsible cleaning products that would be safer for workers, building occupants, and the environment, but did not want to mandate their use or limit other cleaning products. The traditional contract for traditional janitorial supplies is awarded through Central Stores. Customers purchase directly from them. Ecology's work with GA produced a new environmental cleaning supplies contract. Now there are two contracts for cleaning products: 1) The traditional products (bleach, ammonia, disinfectants, abrasive cleansers, etc.) that are purchased through Central Stores; and, 2) Products that met specific environmental criteria, which were awarded to two companies through the Environmentally Responsible Cleaning Products contract. These products can be purchased either directly from the companies or through Central Stores.

The process of developing criteria for environmentally responsible cleaning products, going through the bid development, evaluating bids, and testing the products for performance included five key elements.

Committee Formation

GA and the Ecology teamed up in early 1999 to develop the environmental criteria for cleaning products. A committee of facility managers, purchasing, and environmental staff was convened. Its task was to decide what products to solicit bids for, to determine what the environmental criteria would be, and to conduct performance tests on the products.

Product Identification

A questionnaire was sent to members of the purchasing coop asking what products they would like on the contract and what they would most likely buy. Twenty-one items subsequently went out for bid.

Criteria Research

The committee gathered information on EPP cleaning products from federal, state, and local jurisdictions and reviewed standards that had been set by Green Seal, a scientific organization that develops environmental standards, and by the Washington Toxics Coalition.

Criteria Development

The criteria were based on those already selected by other jurisdictions, and some additional ones specific to Washington State. Because of Washington's concern for water quality and salmon, aquatic toxicity testing was also required, making Washington's the most stringent criteria among those considered. About 30 vendors attended a pre-bid meeting, and their comments and concerns were incorporated into the final criteria and process. Of most concern was the state's original request for a product ingredients list. The vendors did not want to divulge product ingredients, but agreed to have a letter from a certified lab saying that the products met our criteria.

Products Tested

Facility staff at agencies of committee members conducted performance tests on the products that met the environmental criteria and the other bid specifications. These tests were to assure that the EPP products could perform as well as comparable products.

Evaluation of the responsive bids gave equal weight to three considerations: Environmental criteria, price, and performance. Eight mandatory criteria and eight ranked attributes were chosen. The mandatory criteria had to be met before the additional attributes were ranked. The key criteria were those that eliminated products containing toxics, ozone depleters, VOC's, those that had the characteristics of dangerous waste, and those that were not readily biodegradable. The ranked attributes included packaging, irritants, bio-based ingredients, fragrances and dyes, and phosphates.

In May 1999, a vendor forum was held to get comments on the proposed criteria. The Invitation For Bid (IFB) package was completed and a mandatory pre-bid meeting was held in August. An amendment to the IFB extended the bid opening to September 30, 1999.

The bids were required to have pricing information and a certified letter from a testing laboratory affirming that the products met the environmental criteria. No additional information was allowed after the deadline.

Eleven bid packages were received. Nine were not considered because they had incomplete information or no documentation from a testing laboratory. Bids were solicited on twenty-one items. Of these, eleven were bid on: glass cleaner, toilet bowl/urinal cleaner, tub & tile cleaner, concrete cleaner, oven/grill cleaner, hand dishwashing soap, liquid handsoap, spot and mildew remover, vehicle soap, and multipurpose cleaner/degreaser.

The contract was awarded in March 2000 (Contract #11399). It is not required that state agencies purchase these products. But, if they choose to purchase EPP cleaning products, then they must use this contract. The contract is designated as "Mandatory Use," but only for those who choose to buy EPP cleaning products. More and more agencies are now using the products from these contracts for at least some applications. The Division of Capital Facilities, some state parks, and some sections of the Department of Corrections are beginning a pilot test of these cleaning products.

The joint effort on cleaning products with GA highlights a major problem in the effort to promote the purchase and use of EPP products: the difficulty of getting potential buyers to purchase EPP products. GA generally does not do much promotion of the contracts. They make goods and services available to state purchasers, who then make their own decisions on which products to choose. To make people aware of these products, various means have been used. A session was held at the annual OSP Convention and Trade Show on the contract, and an informational bulletin went out to 6,000 people via the GA e-mail broadcast. Articles appeared in Ecology's newsletter "Shoptalk," the Pollution Prevention Research Centers "Pollution Prevention News," and an article in a newsletter that goes out to local government moderate risk waste staff, among others.

Additionally, a presentation of the EPP cleaning products was made to the City of Seattle. Seattle's Executive Services Department is purchasing one of EPP cleaning products. The vendors have been marketing their products aggressively at the Office of State Purchasing's annual trade show, through presentations at Materials Management Association meetings, and on-site demonstrations of their products. Notices and information about the products were sent to various state facilities, electronic list serves, and numerous individuals.

The work on this EPP cleaning products contract was a key stepping stone into getting Washington State involved and known on the regional and national level. Through this work, Ecology was made aware of many EPP

programs and people working in this area. Ecology has received many requests for information about the environmental criteria from state and local governments around the country.

Cleaning Product Recommendations

1. Continue to work with GA to find other ways to promote and educate buyers about environmentally responsible cleaning products. Get the information out to schools. Gather case studies from agencies that have been using these products. Use the case studies as a promotional tool.
2. A new request from GA came to assist in getting environmentally preferable products for the Floor Care "Invitation For Bid." Floor care includes floor strippers, sealers, cleaners, carpet cleaners, tile sealers, and disinfectants, among other products. Ecology's assistance should be similar but less time-consuming than the work on the cleaning products.

Carpet

GA requested assistance from Ecology to provide input into the carpet contract. GA contract staff recently learned about the effort of the Midwestern Carpet Working Group. Ecology conducted an extensive review of GA's draft bid document for the state floor-covering contract. The initial effort was to culminate with an Invitation For Bid going out in the fall of 2000. However, a change in contract administration at GA resulted in a revised bid document and a revised schedule.

Ecology's primary role was to research information on environmental aspects of carpet product and criteria being used by other jurisdictions to encourage design and production of an environmentally preferable product. An inventory of reports, web sites, contracts, and personal communications related to environmental aspects of floor covering and other related contracts was assembled and provided to GA.

Review and comment was based on the two draft documents and materials. GA displayed a strong commitment to incorporating high standards for carpet reuse in the bid documents. As a result of information provided, the standards were further strengthened with respect to the percentage of reclaimed material. Ecology's comment was focused on provisions contained in GA's draft bid documents. In research and discussions, environmental aspects were identified that go beyond the current environmental focus on end-of-life management of carpet and backing materials.

These aspects address material inputs, environmental impacts of maintenance, production pollution, energy and water use in production and reuse – a life cycle analysis approach.

Negotiations on product stewardship of carpet between the Midwestern Carpet Working Group and the carpet industry are underway, and the Product Stewardship Institute is undertaking the extension of these negotiations to the national level. The GA bid document is scheduled for release in the near future. Because effective action with respect to the life cycle issues will require a coordinated research effort, action to broaden the environmental perspective of carpet manufacture and disposal will most likely be made through this national effort.

Ecology staff were invited to a meeting at GA with a carpet industry representative and a consultant working on developing products from end-of-life carpet. Used carpet is not easily recycled back into carpet. Some companies are developing carpet tiles that can be removed and refurbished. Ecology invited industry representatives to present their perspective on product stewardship in the carpet industry. Facility managers from TESC, UW, and other state agencies attended. Industry's comments on the importance of environmentally preferable purchasing have been useful in creating recognition of how agency efforts in the area of product stewardship need to be coordinated with and supported by efforts in product purchasing. These efforts will be most effective if pursued together with other states, local governments, federal agencies, and, private businesses.

As of August 2001, the bid document on carpets remains in the draft stage. This reflects a range of concerns at GA, none related directly to environmental issues. The issue of life cycle impacts of carpet manufacture and reuse will attract increasing attention. In large part, this will result from the energy consequences of the current focus on reuse and recycling. Any effort in this area will require coordination among potential carpet buyers and the carpet industry.

Carpet Recommendations

Major opportunities to influence product stewardship with respect to carpet exist in three separate areas: 1) Further revisions to the bid document; 2) Incentives and information to influence use of the new carpet contract; and, 3) Participation in the national negotiations on product stewardship in the carpet sector.

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1. If a new round of comment and change on the bid document is planned by GA, Ecology has the opportunity to do a systematic review of the status of contracts of other states and update criteria based on new products now on the market.
 2. Information should be provided to those who purchase carpet.
 3. Neither Ecology nor GA are “at the table” for negotiations between governments, NGOs, and the carpet industry. This may be a good product stewardship area to include Ecology’s Solid Waste Program staff. Ecology’s input focused on broadening the scope from end-of-life management to life cycle impact. This means coming to terms with the issues of energy, water use, and pollution in manufacture and, particularly, reuse. These impacts may be more significant than current impacts from end-of-life management (disposal) of used carpet as a solid waste.

Building Materials

When the building materials contract came up for re-bid, Ecology reviewed GA’s Invitation for Bid (IFB) document for Building Materials, and suggested they include environmentally preferable choices for products on their list (including strawboard, described in the next section).

As a result of Ecology’s input, the IFB included a price sheet for traditional materials and an optional one for environmentally preferable products. The traditional products would be awarded with price being a key factor. The environmental products would be awarded with the vendors’ outreach program being key. The reason outreach was valued is because these environmentally preferable building products are not used in the state, and it is important to inform users of the availability of preferable products and provide information on how to use them. Having environmentally preferable products available on contract doesn’t accomplish our goals unless users know about where to get them and how to use them.

A partial list of the environmental products that were listed includes: Certified lumber, plywood, and particleboard; reclaimed wood and 100% wood waste fiberboard; low volatile organic compound (VOC) sealers and adhesives; AQC preserve-treated wood; and non-PVC adhesive caulk. While it was not expected that many vendors would respond to the optional environmental product part of the bid, it was important to send a signal to the market that the state is aware of these products and would like to start purchasing them.

The contract was awarded in July 2001. The overall response to the bid was disappointing. Since it was a *convenience* contract and not *mandatory*, there wasn't a lot of participation. State agencies can use their general purchasing authority to buy what they need if a state contract is not *mandatory*. There were no bidders from the eastside of the state. It is difficult for contractors to make a commitment in pricing, as building material is an area where pricing changes frequently.

One contractor bid on most of the environmental products, but due to their location, not much use is expected. The contract was primarily set up for use by Departments of Corrections and Natural Resources, but is open to all state agencies, and members of the Washington Purchasing Cooperative.

Building Material Recommendations

Promote the use of environmental building products for state use. Publicize the availability and performance of these products. Work with Ecology and GA's sustainable building staff for up-to-date information.

The state could specify that a certain percentage of EPP materials be used in state-funded construction projects.

Straw-based Products

Grain and seed growers traditionally burned their fields after harvest to remove the stubble. Because of air quality concerns, Ecology issued restrictions on the burning of agricultural waste (straw) from grain and seed crops. Ecology Air Program staff are participating in the multi-agency straw utilization workgroup to come up with more environmentally sound ways to use the waste straw. Many options exist, including energy generation, using the straw to make a compressed construction board called strawboard (which is similar to fiberboard), and straw-based paper.

The EPP staff got involved in this issue because of the link to purchasing. Purchasing straw-based products would help transform an environmental hazard (air pollution from straw burning) to an economic resource. Agricultural waste is specifically listed in RCW 43.19A Recycled Procurement Guidelines as part of the definition of recycled materials, and therefore can be part of Washington's recycled product procurement goals. Attention was focused primarily on the product end-use of straw as strawboard, but straw-based paper was also researched.

Strawboard

There are a significant number of strawboard manufacturing facilities in the Midwest and Canada. These facilities produce a construction board from straw that meets ANSI (American National Standards Institute) standards for construction panels. Strawboard does not use formaldehyde, is a non-toxic product, and is used in place of medium-density fiberboard (MDF) or plywood, mostly for cabinetry and furniture.

Ecology presented information about strawboard to GA purchasing staff, including reasons why agricultural waste burning is an issue, the uses, types, and specifications of strawboard, and sources of the material. Separately, the Office of Trade and Economic Development researched the feasibility of locating a strawboard manufacturing facility in Eastern Washington.

Straw Pulp for Paper

Straw can also be used as partial feedstock in the papermaking process, and is currently being produced in Canada. A demonstration project will begin soon at a recently closed de-inking mill in Wallula, Washington to test the feasibility of converting it to a straw-based pulp mill. If the demonstration is successful, the mill will be converted. If the straw pulp is available at a competitive price and quality, the co-located Boise Cascade paper mill at Wallula will purchase it. The pulp will be used for corrugating medium, molded products, newsprint, and bleachable pulp for printing and writing paper.

Straw-based Products Recommendations

Correctional Industries (CI) of the Department of Corrections could potentially be a large user of strawboard in their furniture line. Ecology should work with CI's product development staff on the feasibility of using strawboard instead of fiberboard. Strawboard could also be used for cabinetry in new state buildings or remodels.

Wherever applicable, Ecology should encourage and support use of straw-based paper products.

Computers and Electronics

Computer Purchasing Guide

The Northwest Product Stewardship Council (NWPSC) initiated the development of an environmentally preferable purchasing guide for computers. The City of Seattle and others on the NWPSC wrote the guide, and Ecology staff participated in scoping meetings and editing a draft version of the guide. Ecology staff also helped publicize and distribute the guide, and

made arrangements for its introduction at the Office of State Procurement's Annual Convention. "A Guide to Environmentally Preferable Computer Purchasing" was printed in October 2000. An electronic version is available on the NWPSC web site.

The involvement in this computer purchasing guide helped inform Ecology's waste program staff about the issues of toxics in computer production, and engage staff in the dialogue on the broad issue of product stewardship in the electronics sector. The work was also useful in promoting overall agency involvement in product stewardship.

Computer Purchasing

Computers represent an expensive and continuous purchase by government agencies. Outdated computers and related equipment result in a substantial and potentially dangerous waste stream. There are some avenues available for reuse of old computers, but they only extend their life for another year or two. The subsequent user of the product might be less inclined to dispose of them properly. The state surpluses computers to a program through the Department of Corrections, who refurbishes them for schools.

The Department of Information Services (DIS) coordinates state computer purchasing and provides computer purchasing services to many agencies. Some state agencies have their own computer purchasing contracts. DIS worked with GA on the Western States Contracting Alliance (WSCA) group contract for computers. This is a nationwide contract managed by the state of New Mexico's purchasing department.

The motivation behind the multi-state contract is to get a price break for volume purchasing. Other benefits include reducing the need for every agency to contract on their own, and providing the same discounts to smaller jurisdictions and schools. The first computer contracts went into effect in October 1999. By October 2000, \$295 million in computers and peripherals had been purchased. As additional state and local purchasing authorities begin using the contracts, the volume is expected to top \$1 billion in 2002.

Besides the price advantage of large scale purchasing, the program is structured to make it easy for smaller state and local entities and schools to participate. A few states have encountered barriers to participating because of purchasing regulations that prohibit this type of contract.

The WSCA contract demonstrates the power of group purchasing for price reduction and reduced administrative work on both the purchaser and the seller. Originally, the contract did not take into account or specify any envi-

ronmental attributes of the computers and peripherals including packaging. GA has been instrumental in working with the administrator of this contract and with Dell Computers to reduce and recycle the styrofoam packaging of computers.

Despite challenges, Dell has been responsive to this request and is working on implementing an efficient and cost effective method of recycling the packaging material associated with their systems.

The opportunity exists to amend the contract to specify environmental attributes for these products. If this proves infeasible, then these attributes should be specified when the contract comes up for re-bid. Since it is assumed that the companies that were awarded the contract will want to extend it, it is a good time for the states to specify environmental attributes related to computer purchases and disposal.

Ecology, an agency that purchases its own computers, reduced their cost by guaranteeing an accelerated turnover of computers. Money was saved on the purchase but it is dependent on purchasing more. Ecology has switched to flat panel displays for new computer purchases, which use less energy, produce less heat, and take up less space than standard monitors. It is unknown at this time whether they have fewer toxics in them overall, but they do contain mercury.

Environmental attributes that could be incorporated into existing or future computer contracts include: leasing programs; multi-packing; energy efficient equipment; no halogenated flame retardants; PC's designed to be upgraded or refurbished; low levels of toxics of concern; and labeling of components. Perhaps most importantly, the manufacturers could be required to take back computer products at the end of their useful lives.

Computers and Electronics Recommendations

The state, through participation in the WSCA computer contract, should require that at least some of the environmental attributes be designed into the computers that we purchase. Expertise exists in state and local government staff and through the regional and national groups working on encouraging manufacturers to take more responsibility for the environmental problems created both by manufacturing and by disposal of these items. Purchasing these products is an incentive the government can offer.

A computer leasing (rather than purchasing) program should be explored.

Paint

Paint is a widely used product, with a state contract term worth approximately \$1 million per year. There is a potential to have a paint contract that specifies environmental criteria. The state had a recycled paints contract before but it was terminated due to poor vendor performance.

One reason that paint was selected as a potential EPP project is the recent study of paint conducted by Green Seal and the U.S. Military's Aberdeen Proving Ground. This detailed report describes criteria for environmentally preferable paint, and includes a long list of paint products that meet these standards. One of the difficulties with encouraging the use of environmental products is developing defensible and accepted criteria. Green Seal, a certification organization, and Aberdeen Proving Ground did this work. The state could easily specify the standards and still not limit the competition. Some of the criteria to look for include recycled content, zero or low volatile organic compounds, and no extremely harmful ingredients.

Ecology evaluated the study and was willing to assist with environmental specifications for a new paint contract, but GA contracts staff did not take us up on our offer.

Paint Recommendations: Another attempt should be made to include environmental specifications in the paint contract. Some research could be done to determine if a new recycled paint contract could be developed.

Paper

The state currently has 30% post-consumer waste copy paper on contract, along with virgin copy paper. It costs more for GA to purchase the paper with recycled content. To encourage agencies to purchase the recycled paper, GA has adjusted the selling price so that it is slightly less expensive to purchase than the virgin stock. Because of this price adjustment and other efforts by GA, the state has met its goal for purchase of recycled content paper. About 80% of the copy paper sold is 30% recycled. Much of the office paper products available through Central Stores contain recycled content. The catalog listings indicate recycled content in the description.

The next step to promote purchase of environmentally appropriate paper is to obtain recycled content copy paper that is bleached without chlorine or chlorine compounds (known as "process chlorine-free"). Processing pulp with chlorine produces dioxin, an extremely toxic chemical that does not readily break down and is accumulated and concentrated in the food chain.

Dioxin is a persistent, bioaccumulative, toxic (PBT) chemical of concern, and it is one of the chemicals targeted for reduction in our legislatively funded effort. Most mills have switched to producing papers processed with chlorine dioxide, which generates far less dioxin than elemental chlorine. Paper with a high percentage of recycled content that is produced without chlorine is available and has met performance standards for high-speed copiers and printers. This paper cannot be declared “totally chlorine free” because of the unknown source of the paper that is being recycled. Only paper produced from virgin pulp can be certified as “totally chlorine-free,” because it is assumed that the recycled pulp was made from paper that had been processed with chlorine.

From the research conducted, it appears that the best environmental paper to purchase is with a high recycled content and processed without chlorine. Paper made from fibers other than wood are available and their acceptability for office use should be explored.

In the spring of 2000, GA began work on a new paper contract. Ecology provided information to the state purchaser on the different types of bleaching processes, the Chlorine Free Products Association (a certifying group), various mills and vendors who distributed this paper, and language from contracts that other states have done. The work was postponed at GA and started up again in the spring of 2001. GA had a meeting in June 2001 with the mill representatives, who apparently did not take GA’s inquiries about chlorine-free seriously.

EPA Region 10 gathered information about an 80% recycled content, process-chlorine free paper, and is attempting to set up a group purchase to lower the cost. The State of Vermont has successfully switched to this paper in their office applications. This information was forwarded to the GA contracts officer and Ecology purchasing office, but to date, no action has been taken.

Paper Recommendations

Efforts should continue to get the state, or at least Ecology, to purchase paper processed without chlorine. Continue to work with GA to acquire copy paper with a post consumer waste content of 50 – 80%.

Explore potential of using non-wood fiber paper for some office applications.

Automotive

Vehicles and automotive products and services are used by every state agency. The pollution caused by consumption of fossil fuels and by vehicle transportation in general is one of the largest problems we face. Efforts to reduce the environmental impacts of driving are one of the most important things government agencies can do. While Ecology did not have a recent active role in the automotive area, it is included in this report to recognize the efforts GA has already undertaken, and to make suggestions for future improvements.

The state has been purchasing flexible fuel vehicles for several years. These vehicles can be fueled with compressed natural gas (CNG), ethanol, or gasoline. Since CNG and ethanol have not been conveniently available to the state fleet, the vehicles continue to be fueled with gasoline. GA will address that need by making ethanol and other non-gasoline fuels more available to the state fleet. Ecology participated in a scoping meeting for the fuels contract.

Hybrid gas-electric vehicles are available for purchase through a GA contract. Ecology and other state agencies have begun purchasing these vehicles. The trend should increase after these first pioneers have used these vehicles for a while and can speak to the performance, safety, and maintenance issues.

Re-refined motor and hydraulic oil are available in bulk on a state contract. This is useful only to those agencies that have their own fleet maintenance. Other agencies that have their vehicles serviced through convenience service stations do not have accessibility to re-refined motor oils since it is not currently offered at service stations.

Automotive Recommendations

Continue to support and promote the use of non-gasoline fuels in the flexible fuel vehicles in the fleet. Continue to encourage and educate users about the hybrid vehicles and encourage purchase of them.

Make cases of re-refined motor oil available through Central Stores for agencies who don't purchase in bulk. GA could have a convenience contract with a franchised quick lube and require them to use re-refined motor oil in state vehicles. The state should require use of re-refined motor oil in state vehicles whenever available (RCW 43.19A gives us the authority) – it would help speed market availability of re-refined motor oil.

Outreach and Education

As noted in the specific commodity sections, Ecology tried a number of different means to get information to users and promote the use of environmentally preferable products. While some techniques were recognized as valuable, they were not necessarily used to the full extent. The state does not currently mandate EPP practices, so anything that happens is voluntary in terms of purchases. Because of the voluntary nature, it is essential to focus energy on the purchaser, and provide information to encourage the purchase of environmentally preferred products.

Environmentally Preferable Purchasing Guide

One major outreach effort underway is the development of an Environmentally Preferable Purchasing Guide. Sections of the guide will be tailored to the needs of facility, office, fleet and general purchasing managers who are involved in purchasing decisions. The EPP information will be focused on their particular needs.

Outreach and Education Recommendations

Some ideas on promoting EPP:

- ▶ Increase usage of the GA e-mail broadcast system. This source of information about state contracts for purchasing coordinators goes to 6,000 people.
- ▶ Work with GA to have an active EPP section on the purchasing web page.
- ▶ Items in the Central Stores catalog could be identified with environmental attributes (currently, primarily recycled content of paper is noted). Attributes could include energy-savings; water savings; low toxicity; low VOC; refurbished items; or items that have provided for end-of-life management.
- ▶ Set Tracking Goals: There are no goals set for the purchase of EPP products. The new Ultimate Purchasing System, when instituted, will have the ability to track purchases, and should be used fully.
- ▶ Provide information to specific agencies or user groups through presentations, articles, email notices.
- ▶ Continue work on the EPP Guide including marketing and distributing.

Executive Order and EPP Policy

There is no state level legislation, order, or policy on environmentally preferable purchasing.

Executive Order

A draft Executive Order (EO) on Energy and Environmental Management was being drafted by GA and WSU Energy in the fall of 2000. Ecology staff proposed language to the draft EO that would include environmentally preferable purchasing, including expanding the current recycled content bid

preference to include EPP products. Purchasing managers at GA contributed EPP language as well. Ecology presumes the EO is not going forward in the current form. There is interest from both GA and Ecology to continue pursuing an Executive Order for EPP and product stewardship.

Policy

An Environmentally Preferable Purchasing Policy for Ecology has been developed. Guidelines with more specific commodity recommendations will go along with the policy. Specific information is put into guidelines so they can be easily updated, whereas a policy is the basic operating principle. Once Ecology has adopted and followed this policy, it could be made available as a boilerplate through GA to other state and local agencies.

Recommendations

- ▶ Work with GA on a draft EO on EPP and product stewardship.
- ▶ EPP Purchasing Policy. A boilerplate EPP policy such as the one developed for Ecology should be made available to all state agencies and members of the purchasing cooperative.

Product stewardship is a term used to describe a product-centered approach to environmental protection. It calls on those in the product life cycle — *from designers, manufacturers, retailers, consumers, and disposers* — to share responsibility for reducing the environmental impacts of products. Product stewardship can lead to improvements in air and water quality as well as in the waste management system. It is a new approach to existing problems.

Ecology staff are involved in many groups working on product stewardship. These include: The Northwest Product Stewardship Council (NWPSC), the National Electronics Product Stewardship Initiative (NEPSI), and the Western Electronics Product Stewardship Initiative (WEPSI).

Product stewardship is an extension of Ecology's pollution prevention, technical assistance, and green purchasing work. It makes economic and environmental sense, and can help move us toward sustainable communities and resources.

Ecology's more recent efforts with GA have begun to overlap with regional and national efforts in the product stewardship area for carpets and computers (electronics). Ecology is investing more time into regional and national efforts that are attempting to negotiate take-back programs with manufacturers. One such effort is a national one aimed at electronics. Ecology staff will recommend how to move forward with this new environmental management tool.

Recommendations

Recommendations on how to proceed with product stewardship activities will be detailed in a report. It will include the following:

- ▶ Work with GA to incorporate product stewardship principles into state contracts. Early focus might be on end-of-life management, such as requiring manufacturers to take back spent goods for recycling, refurbishing, or reusing.
- ▶ Identify environmentally inappropriate products and provide that information to GA (such as persistent herbicides).
- ▶ Work with GA to develop executive order language on environmentally sound purchasing and product stewardship

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- ▶ Incorporate end-of-life management into procurement requirements. Incorporate environmental performance record into vendor qualifications.
 - ▶ Ensure purchasing practices are consistent with and support implementation of the Ecology's PBT chemicals strategy.
 - ▶ Incorporate product stewardship into current computer purchasing contracts – (Western States Contracting Alliance).

Summary

Working directly with contracts officers to get more environmental criteria in contracts has had some success, but it is ultimately an approach with limited effectiveness. It takes a lot of time for contracts to be developed, and often things get postponed. There has also been staff turnover at GA and subsequent changes of commodity assignments. Workload is an issue both at GA and Ecology. Staff at both agencies don't have the time to be fully engaged in very many commodities, but tend to have gotten partially engaged in many.

As noted, the state has many contracts with environmental attributes, but their use is not required. The environmental benefit comes if agencies purchase the environmentally preferred products. The state focuses on customer choice, and tends to provide contracts for items that customers want, as opposed to driving the direction by purchasing more proactively.

With Ecology's experience on environmental criteria and movement toward product stewardship, efforts are best directed toward an evolving merger between EPP and Product Stewardship. Ecology hopes to provide a major focus on marketing approaches that can bring about more state agency purchasing of green products. There will be opportunities to incorporate product stewardship principles into GA contracts. Eventually, GA will be able to adopt more EPP and product stewardship with less help from Ecology.

Some ways to advance environmentally preferable purchasing in state government is through legislation or through Executive Order. RCW 43.19A "Recycled Product Procurement" has allowed the state to be proactive in securing and marketing products with recycled content. The state based its standards on the US EPA's guidelines. The Federal government has moved ahead into making their purchasing dollars help protect the environment by setting guidance and developing a program on Environmentally Preferable Purchasing (EPP). Many state and local governments have been following EPA's lead. EPP takes into account environmental attributes of products beyond just recycled content, such as toxicity, natural resources, energy use, etc. It includes production and end-of-life management issues as well.

General Administration is interested in moving the state in this current direction, but through a voluntary rather than legislative approach. Ecology management and GA management should explore the benefits and drawbacks of a legislative versus a voluntary approach. An Executive Order that strongly encourages the use of environmentally preferable products is one way to give backing to a voluntary system.

Recommendations from Specific Commodity Areas

The following recommendations are repeated from the main document. Obviously, these recommendations represent more than can be done with current staffing. The next step is to prioritize these ideas.

1. Cleaning Products

- a. Continue to work with GA to find other ways to promote and educate buyers about environmentally preferable cleaning products. Do outreach to schools. Gather case studies and testimonials of agencies that have been using these products. Use the case studies as a promotional tool.
- b. A new request from GA came to assist in getting environmentally preferable products for the Floor Care “Invitation to Bid.” Floor care products include: floor strippers, sealers, cleaners, carpet cleaners, tile sealers, and disinfectants, among other products. Our assistance should be similar but less time-consuming than the work on the cleaning products.

2. Carpet

Major opportunities to influence product stewardship with respect to carpet exist in two and or three separate areas: 1) Further revisions to the bid document; 2). Incentives and information to influence use of the new carpet contract; and, 3) Participation in the national negotiations on product stewardship in the carpet sector.

- a. If a new round of comment and change on the bid document is planned by GA, Ecology would have the opportunity to do a systematic review of the status of contracts of other states and to update criteria based on new products now on the market.
- b. The EPP guide should be supplemented by mandates for purchase of environmentally preferable products. Ecology explored this by working on possible executive orders for energy and sustainability.

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- c. Neither Ecology nor GA are active in the negotiations between governments, NGOs, and the carpet industry. This might be a good product stewardship area for including staff from Ecology's Solid Waste program. So far, Ecology's input has focused on broadening the scope from end-of-life management to life cycle impact. This means coming to terms with the issues of energy, water use, and pollution in manufacture and, particularly, reuse. These impacts may be more significant than the current impacts from end-of-life management (disposal) of used carpet as a solid waste.

3. Building Supplies

- a. Where possible, promote the use of environmental building products for state use. Make known the availability and performance of these products. Work with Ecology's sustainable building staff for up-to-date information.
- b. The state could specify that a certain percentage of EPP materials be used in state-funded construction projects.

4. Straw-based Products

- a. Correctional Industries (CI) of the Department of Corrections could potentially be a large user of strawboard in their furniture line. Ecology should work with CI's product development staff on the feasibility of using strawboard instead of fiberboard. Strawboard could also be used for cabinetry in new state buildings or remodels.
- b. Wherever it is applicable, Ecology should encourage and support use of straw-based paper products.

5. Computers

- a. The state, through participation in the WSCA computer contract, should take the lead in requiring that the next iteration of the computer and peripherals contract require that at least some of the environmental attributes be designed into the computers that we purchase. Expertise exists in state and local government staff and through the regional and national workgroups working on encouraging manufacturers to take more responsibility for the environmental problems created both by manufacturing and by disposal of these items.

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- b. A computer leasing rather than purchasing program should be explored.

6. Paint

- a. Another attempt should be made with GA to include environmental specifications in the paint contract.
- b. Some research could be done to determine if a new recycled paint contract could be developed.

7. Paper

- a. Dioxin is a persistent, bioaccumulative, toxic (PBT) chemical of concern, and it is one of the chemicals targeted for reduction in our legislatively funded effort. Most mills have switched to producing papers processed with chlorine dioxide, which produces far less dioxide than elemental chlorine. Efforts should continue to try to get the state, or at least Ecology, to purchase paper processed without chlorine.
- b. Continue to work with GA to acquire copy paper with a post consumer waste content of 50 – 80%.

8. Automotive

Recommendations

- a. Continue to support and promote the use of non-gasoline fuels in the flexible fuel vehicles in the fleet.
- b. Continue to encourage and educate users about the hybrid vehicles and encourage purchase of them.
- c. Make re-refined motor oil available in cases through Central Stores for the agencies who don't purchase in bulk. GA could have a convenience contract with a franchised quick lube and require them to use re-refined motor oil in state vehicles.
- d. The state should require use of re-refined motor oil in state vehicles (whenever available). The authority is in place under RCW 43.19A. This will help speed market availability of re-refined motor oil.

Outreach and Education

Some ideas of how to promote EPP:

- ▶ Increase the use of the GA e-mail broadcast system. This source of information about state contracts for purchasing coordinators and goes to 6,000 people.
- ▶ Work with GA to have an EPP section on the purchasing web page.
- ▶ Items in the Central Stores catalog could be identified with environmental attributes (currently, primarily recycled content of paper is noted). This could include energy-saving; water saving; low toxicity; low VOC; refurbished items; items that have provided for end-of-life management.)
- ▶ Set and Tracking Goals: As of the date of this report, there are no goals set for the purchase of EPP products. The new Ultimate Purchasing System, when instituted, will have the ability to track purchases, and should be used fully.
- ▶ Provide information to specific agencies or user groups through presentations, articles, email notices
- ▶ Ensure that the EPP Guide is well written, marketed, and distributed.

Executive Order and EPP Policy

- a. Work with GA on a draft EO on EPP and product stewardship.
- b. A boilerplate EPP policy such as the one developed for Ecology should be made available to all state agencies and members of the purchasing cooperative.

For More Information on Environmentally Preferable Purchasing

Department of General Administration – Office of State Procurement

<http://www.ga.wa.gov/purchase/>

Department of Ecology (From the Sustainability page, there is a section on Product Stewardship)

<http://www.ecy.wa.gov/>

EPA's Environmentally Preferable Purchasing Program

<http://www.epa.gov/opptintr/epp/>

Executive Order 13101 – Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition <http://www.epa.gov/opptintr/epp/pdfs/13101.pdf>

Final Guidance on Environmentally Preferable Purchasing (E.O. 13101)

<http://www.epa.gov/opptintr/epp/finalguidancetoc.htm>

EPA's Comprehensive Product Procurement Guidelines

<http://www.epa.gov/cpg>

EPA's Extended Product Responsibility

<http://www.epa.gov/epaoswer/non-hw/reduce/epr/index.htm>

Northwest Product Stewardship Council

<http://www.govlink.org/nwpsc/>

GSA Federal Supply Service (Select Customers, then Environmental to go to "Think Green")

<http://www.fss.gsa.gov/>

Minnesota Environmental Purchasing

<http://www.moea.state.mn.us/lc/purchasing/index.cfm>

Environmentally Preferable Purchasing Guide

http://www.swmcb.org/EPPG/1_1.htm

The Commonwealth of Massachusetts - Environmentally Preferable Products Procurement Program

<http://www.state.ma.us/osd/enviro/enviro.htm>

King County's Environmental Purchasing Program

<http://www.metrokc.gov/procure/green>

Environment Canada's Environmental Choice Program

<http://www.environmentalchoice.com/default.cfm?Content=Home&Footer=1&Pageset=sidetools>

Recycled Products Purchasing Cooperative

<http://www.recycledproducts.org/>

Alternative Fuels for Fleet Vehicles

<http://www.pprc.org/pprc/pubs/topics/altfuels.html>

Green Seal Standards

<http://www.greenseal.org/howto.htm>

Certified Forest Products Council

<http://www.certifiedwood.org/>

Environmentally Preferable Products Listserve - Registration

http://lilith.webrover.com/cgi-bin/lyris.pl?enter=eppnet&text_mode=0

